

REMARKS

This amendment responds to the final office action mailed August 14, 2008. In the office action the Examiner:

- rejected claims 91, 102, 113, 124 and 125 as being indefinite under 35 U.S.C. 112, first paragraph; and
- rejected claims 91-125 under 35 U.S.C. 102(e) as being anticipated by Barg et al (U.S. Patent No. 6,707,454).

After entry of this amendment, the pending claims are: claims 91-135. Claims 1-90 have been canceled. Claims 126 and 135 are new claims.

Interview with the Examiner

The Applicant and his attorney Doug Crisman (Reg. No. 39,951) appreciate the opportunity to discuss this application with the Examiner at the USPTO on October 16, 2008. During this meeting, the Applicant provided a demo of the software that embodies the present application and explained why the Applicant believes that the pending claims are not disclosed by the cited references, alone or in combination. Among other subjects, the Applicant explained that the dimensional levels recited in the pending claims can be a built-in or inherent hierarchy in a multidimensional, hierarchical OLAP data cube.

Claim Amendments

With this amendment, the Applicants have replaced several terms with the terms that have been expressly used in the specification, e.g., “metadata” being replaced with “schema” and “visual plot” or “visual plot window” being replaced with “visual table.” The Applicants have also amended all the independent claims to recite that (i) the dataset has an inherent hierarchical dimension and (ii) a plurality of panes are formed within the visual table. As will be explained below, there is sufficient support for these amendments and no new matter has been entered.

The Applicants have added new claims 126-135. Support for these claims can be found in Figures 6, 22, and 23 as well as related text. No new matter has been added.

Claim Rejections – 35 U.S.C. §112

Independent claims 91, 102, 113, 124, and 125 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement because the Examiner believed that the following feature:

detecting user interactions with the schema display region and the first and second axis shelves to associate the first and second dimension levels with either the first axis shelf or the second axis shelf, respectively

was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The Applicants respectfully traverse this rejection because the specification has sufficient disclosure of the feature to enable one skilled in the art to practice the invention. See, for example, paragraphs [0076]-[0078] in connection with Fig. 8. For convenience, a portion of paragraph [0078] and Fig. 8 are reproduced below.

[0078] *A user can drop any dimension level into the interface of shelves 708. However, the dimensions 704 cannot be dragged into the shelves.* Shelves 708-4 and 708-5 are the axis shelves. The operands placed on shelves 708-4 and 708-5 (e.g., year, quarter, month, product-type, product, market, state) determine the structure of visual table 720 and the types of graphs that are placed in each pane 722 of visual table 720.

Emphasis added

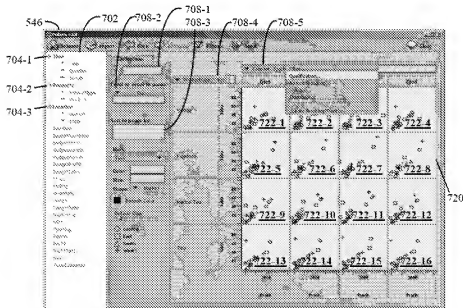


Fig. 8

In view of the above, the Applicants believe that Examiner should withdraw the rejection under 35 U.S.C. 112, first paragraph.

Claim Rejections – 35 U.S.C. §102(e)

Claim 91, as amended, recites a computer-implemented method of visualizing a dataset in a graphical user interface. The method includes splitting two built-in dimension levels of an inherent hierarchical dimension onto two different axis shelves and forming in a visual table a plurality of panes, each pane having a first axis corresponding to one of the dimension levels associated with the first axis shelf and a second axis corresponding to one of the dimension levels associated with the second axis shelf.

Fig. 20 (reproduced below with mark-ups) depicts an exemplary graphical user interface in accordance with an embodiment of claim 91. The graphical user interface includes a schema display region (also known in “schema box” in the specification of this application) and a data visualization region. The schema display region includes a multi-level hierarchical dimension “time.” The “time” dimension here has at least three levels, “month”, “quarter”, and “year”. In response to user instructions to associate the “quarter” and “month” levels with the first axis shelf and the “year” with the second axis shelf, respectively, the “quarter” and “month” levels are displayed in the first axis (x-axis) shelf and icon of the “year” level is displayed in the second axis (y-axis) shelf of the data visualization region. The x-axis is horizontal and the y-axis is vertical. The visual table is populated with 4x2 panes, “Pane A” through “Pane H,” each pane having a similar bar chart representing the respective sales within the three months of a specific quarter in a particular year.

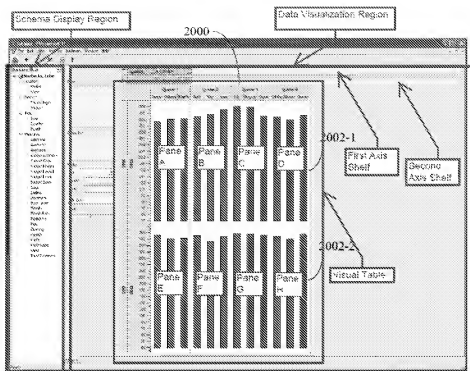
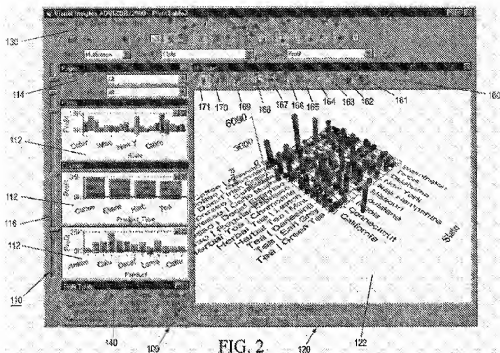


Fig. 20

Contrary to the Examiner's understanding, Barg does not teach or suggest each feature of claim 91.

First, neither the dimensional view portion 110 nor the single measure view portion 120 shown in Fig. 2 of Barg (reproduced below) is a schema display region. According to the present application, a schema display region includes a representation of the database schema for a database being analyzed. See, for example, paragraph [0077] of the present application. But both view portions 110 and 120 of Fig. 2 are visualization of the same measure data (*i.e.*, profit) stored in a data spreadsheet, not the schema of the data spreadsheet. Nor does Fig. 1 of Barg include schema display region as recited by claim 91 because Fig. 1 is an exemplary pivot table.



Second, neither the dimensional view portion 110 nor the single measure view portion 120 shown in Fig. 2 of Barg includes a first axis shelf or a second axis shelf. As noted above, both view portions in Fig. 2 of Barg are visualization of the same measure data stored in a data spreadsheet from different perspectives. The section quoted by the Examiner (col. 5, lines 52-62) only suggests that a user can interactively select regions of the measure data. But it provides no indication that a user can associate one component within one view portion with another component within a different view portion.

Third, Barg teaches that the two levels of the product attribute, the higher level “product type” (e.g., tea) and the lower level “product” (e.g., green tea), are always associated with the same axis of a visual table. The flowchart in Fig. 24 of Barg cited by the Examiner teaches that multiple dimensions may be combined to create a row or column axis (col. 26, lines 15-17 of Barg). But it does not disclose that two levels of the same hierarchical dimension can appear at different axes of the same visual table with different orientations as recited in claim 1 of the present application.

Fourth, Barg does not teach or suggest a visual table that contains a plurality of panes, each pane visualizing a respective subset of the dataset using the same axis configuration, as recited in claim 91. Although Fig. 2 of Barg depicts multiple views of the same, each view has its own, unique axis configuration such that there are no two views sharing the same axis

configuration. For example, the three dimensional views 112 of Fig. 2 of Barg each have a 2-D bar chart with the same vertical axis “Profit,” but different horizontal axes “State,” “Product Type,” and “Product.” But the single measure view 122 depicts a 3-D bar chart with its own axis configuration. But as shown in Fig. 20 of the present application, the visual table includes 4x2 panes, each pane having the same axis configuration, *i.e.*, the “Quarter” and “Month” on the horizontal axis and the “Year” and “Sales” on the vertical axis.

In sum, claim 91 and its dependent claims are not anticipated by Barg for at least the reasons above. Because independent claims 102, 113, 124, and 125 correspond to claim 91, these respective claim sets are not anticipated by Barg for at least the reasons above.

Finally, it should be noted that, by responding in the foregoing remarks only to particular positions asserted by the Examiner, Applicants do not necessarily acquiesce in other positions that have not been explicitly addressed in this amendment. In addition, Applicants’ arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

In light of the above amendments and remarks, the Applicant respectfully submits that all the pending claims are in condition for allowance and all the pending claim requests that the Examiner reconsider this application with a view towards allowance. The Examiner is invited to call the undersigned attorney at (650) 843-4000, if a telephone call could help resolve any remaining items.

Respectfully submitted,

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